Having thus described the preferred embodiments, the invention is now claimed to be:

1. A method for detecting and segmenting sweeps in a graphics image, comprising the steps of:

a) detecting sweep segment information from one or more color channel histograms of the graphics image; and

b) segmenting the graphics image into sweep and non-sweep areas using the sweep segment information.

2. The method as set forth in claim 1, wherein the color channel histograms of step a) are in CIELUV color space.

3. The method as set forth in claim 1, step a) further including the steps:

c) transforming the graphics image to a three-dimensional histogram in color space;

d) estimating two-dimensional histograms for each of the color channels from the three-dimensional histogram; and

e) processing each of the two-dimensional histograms to detect sweep segment information.

4. The method as set forth in claim 3, wherein the color space of step c) is CIELUV color space and the color channels of step d) are color channels in the CIELUV color space.

5. The method as set forth in claim 3, step d) further including the step:

f) normalizing the two-dimensional histograms according to a predetermined scaling scheme.

6. The method as set forth in claim 3, step e) further including the steps:

f) detecting edges in each of the two-dimensional histograms to create corresponding edge maps; and

g) performing a connectivity analysis of the edges in each of the edge maps.

7. The method as set forth in claim 6, step e) further including the steps:

h) converting the detected edges in each of the edge maps to points in a Hough parametric space;

i) rendering lines from the Hough parametric space on the corresponding edge map; and

j) marking the overlap between the rendered lines and curves and the detected edges on each of the edge maps.

8. The method as set forth in claim 7, step e) further including the steps:

k) identifying pairs of parallel line segments in each of the edge maps;

l) computing the mid-segment of each pair of parallel line segments in each of the edge maps to complete detection of the sweep segment information for each two-dimensional histogram; and

m) combining the detected sweep segment information.

9. The method as set forth in claim 1, further including the step:

c) performing post-processing on the input graphics image to reject segmenting that falsely identified any non-sweep portion of the image as a sweep area and vice versa.

10. The method as set forth in claim 9, wherein the post-processing includes using a digital filter to reject small isolated areas of sweeps and non-sweeps.

11. The method as set forth in claim 9, wherein the post-processing includes computing gradient information and rejecting those sweep areas where the gradient in the image is less than a threshold.

12. The method as set forth in claim 11, wherein the post-processing includes computing gradient information at several scales.

13. The method as set forth in claim 9, wherein the post-processing includes rejecting segmenting due to horizontal lines detected in the U and V color channel s.

14. A method for detecting and segmenting sweeps in a graphics image, including the steps of:

a) transforming an input graphics image to a three-dimensional histogram in color space;

b) estimating two-dimensional histograms for each of the color channels from the three-dimensional histogram;

c) processing each of the two-dimensional histograms to detect sweep segment information; and

d) segmenting the input graphics image into sweep and non-sweep areas using the sweep segment information.

15. The method as set forth in claim 14, wherein the color space of step a) is CIELUV color space and the color channels of step b) are color channels in the CIELUV color space.

16. The method as set forth in claim 14, step b) further including the step:

e) normalizing the two-dimensional histograms according to a predetermined scaling scheme.

17. The method as set forth in claim 14, step c) further including the steps:

e) detecting edges in each of the two-dimensional histograms to create corresponding edge maps;

f) performing a connectivity analysis of the edges in each of the edge maps;

g) converting the detected edges in each of the edge maps to points in a Hough parametric space;

h) rendering lines from the Hough parametric space on the corresponding edge map; and

i) marking the overlap between the rendered lines and the detected edges on each of the edge maps.

18. The method as set forth in claim 17, step c) further including the steps:

j) identifying pairs of parallel line segments in each of the edge maps;

k) computing the mid-segment of each pair of parallel line segments in each of the edge maps to complete detection of the sweep segment information for each two-dimensional histogram; and

l) combining the detected sweep segment information.

19. The method as set forth in claim 14, further including the step:

e) performing post-processing on the input graphics image to reject segmenting that falsely identified any non-sweep portion of the image as a sweep area and vice versa.

20. The method as set forth in claim 19, wherein the post-processing includes using a digital filter to reject small isolated areas of sweeps and non-sweeps.

21. The method as set forth in claim 19, wherein the post-processing includes computing gradient information and rejecting those sweep areas where the gradient in the image is less than a threshold.

22. The method as set forth in claim 19, wherein the post-processing includes rejecting segmenting due to horizontal lines detected in the U and V color channel s.

23. A method for detecting and segmenting sweeps in a graphics image, including the steps of:

converting an input graphics image to a color space;

projecting the image represented in the color space to a plurality of planes;

detecting curves in each plane;

identifying pixels of the color associated with each detected curve and storing such pixel information; and

combining the pixel information for each color to determine if pixels of that color are part of a sweep.

24. The method as set forth in claim 23, wherein:

the input graphics image is converted to a CIELUV color space;

the image represented in the color space is projected to three orthogonal planes;

curves in each plane using are detected using a Hough transform and edge linking;

pixels of the color associated with each detected curve are identified using a logical label; and

the pixel information for each color is combined using a logical AND operation to determine if pixels of that color are part of a sweep.